State Energy Policy Trends - 2009

New Mexico

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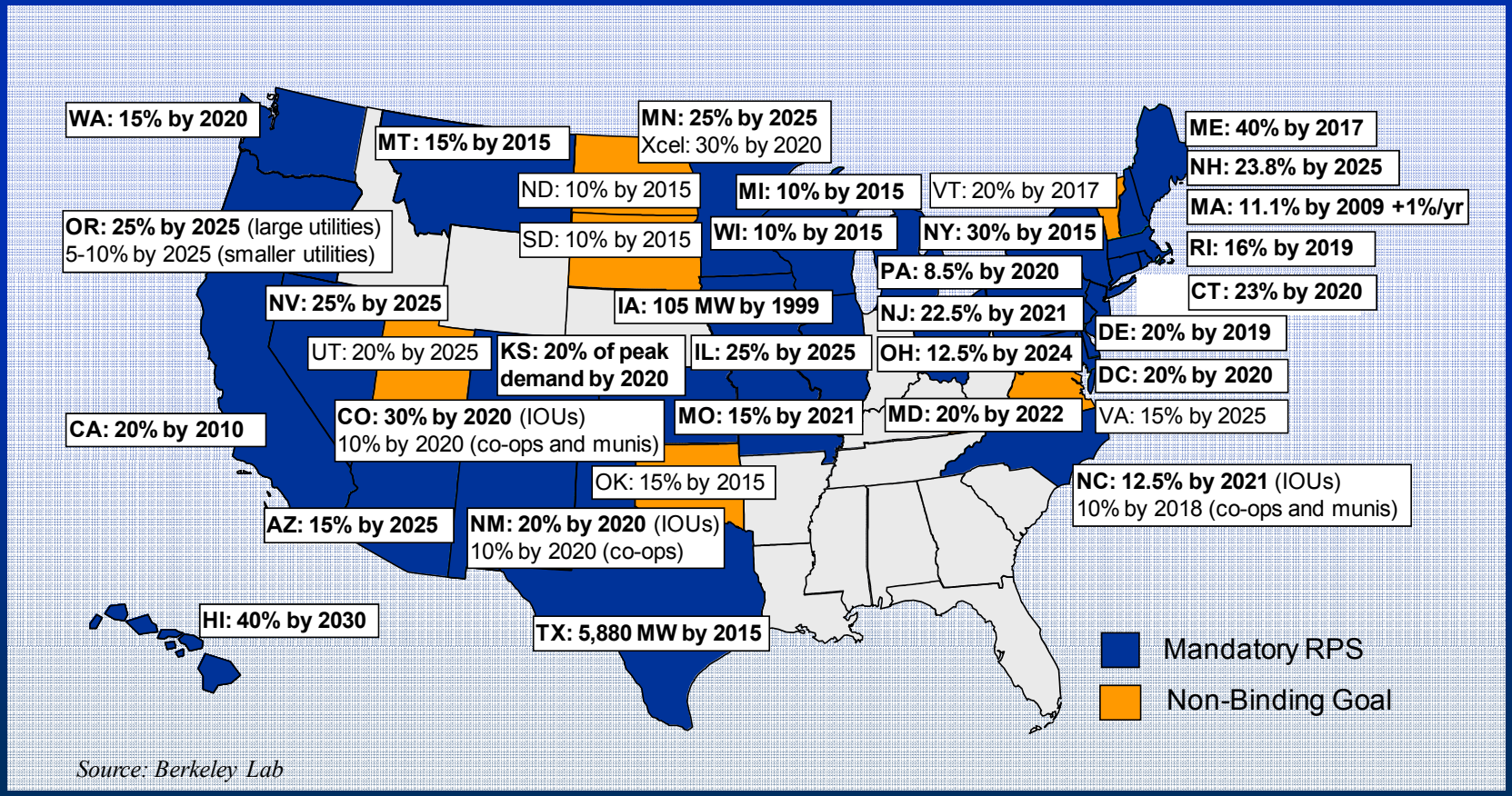
National Conference of State Legislatures

The Forum for America's Ideas

Renewable Electricity Standards

- What is an RPS?
  - Requirement for retail electricity suppliers,
  - To sell a minimum percentage of retail electricity
  - From qualifying renewable sources
- Renewable energy credits and alternative compliance payments are common.

29 States and DC have an RPS
6 states have goals



Source: Berkeley Lab

Variation Among Programs

- Critical design differences among states
  - Targets and timeframes
  - Covered Entities
  - Renewable eligibility
  - Treatment of out-of-state generators
  - Set-asides or multipliers for favored technologies
  - Allowance for RECs, and REC definitions
  - Methods to enforce compliance
  - Rate cost caps
  - Funding mechanisms
  - Long-term contract requirements or other incentives to induce financing

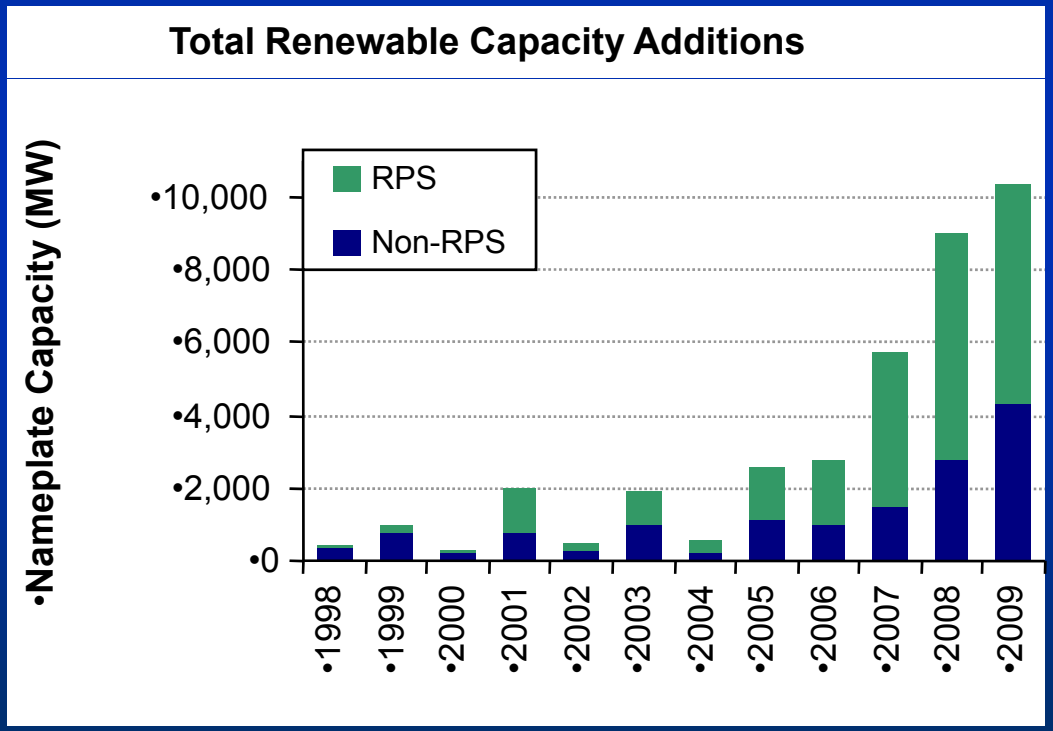
States Continue to Create and Revise

- Changes in 2009
  - KS: New RPS of 20% of peak demand by 2020
  - HI: Raised from 20% by 2020 to 40% by 2030; separate EEPS
  - IL: Extended RPS to competitive ESPs; added solar set-aside
  - ME: Added 1.5x credit multiplier for community-based projects
  - MN: Amended wind set-aside to allow solar to contribute 1% of the set-aside
  - NV: Raised from 20% by 2020 to 25% by 2025; modest increase in solar set-aside; loosened deliverability rules
  - OR: Added solar set-aside and multiplier
  - RI: Added long-term contracting requirement
  - NY: expanded from 25 to 30 percent by 2015

This Year's Trend (2010)

- 25 states have introduced 64 bills on renewable portfolio standards. 12 were enacted.
  - Increasing credits for off-shore wind (Virginia)
  - Adding new resources
    - Biomass, municipal solid waste, low impact hydropower (Oregon)
  - Illinois added 6 % solar requirement (2009)
  - Increasing RPS requirements
    - CO increased RPS to 30% by 2020. 10% for muni/coop.
    - CA increased RPS to 33%.

Renewable Growth Among States



Source: Berkeley Lab

State Progress

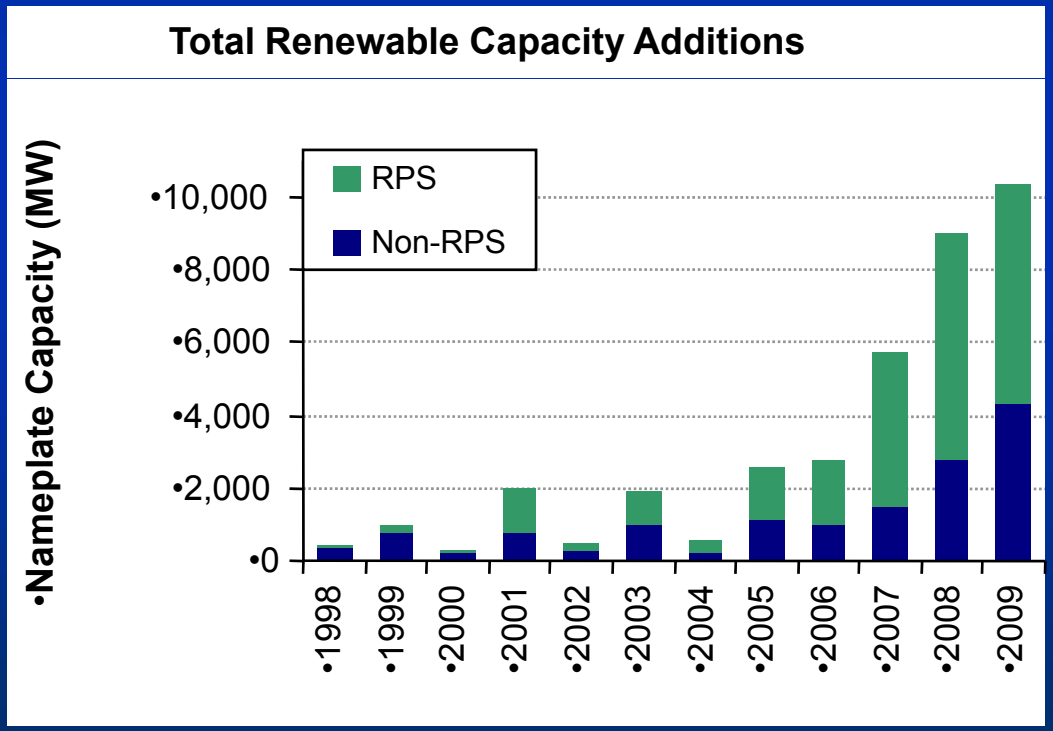
- Lawrence Berkeley Laboratory research shows that most states reaching 90 to 100 percent of targets.
- Arizona, California, Nevada and New York were missing their targets.
  - Funding amounts too low (AZ)
  - Transmission, siting challenges, tax incentive uncertainty, and slow contracting (CA)
  - Contract failures and delays, transmission constraints (NV)
- Few states have required payment of alternative compliance payments or penalties.

Cost Caps

- Types are many, including:
  - Alternative compliance payment (with automatic cost recovery): MA, ME, NH, NJ, RI, DE, MD, OR, DC
  - Retail rate / revenue requirement cap: CO, KS, IL, MD, MO, NM, OH, OR, WA
  - Renewable energy contract price cap: HI, MT, NM
  - Per-customer cost cap: AZ, MI, NC, NM
- Most states cap at 7 percent or below. New Mexico is just below 2 percent.

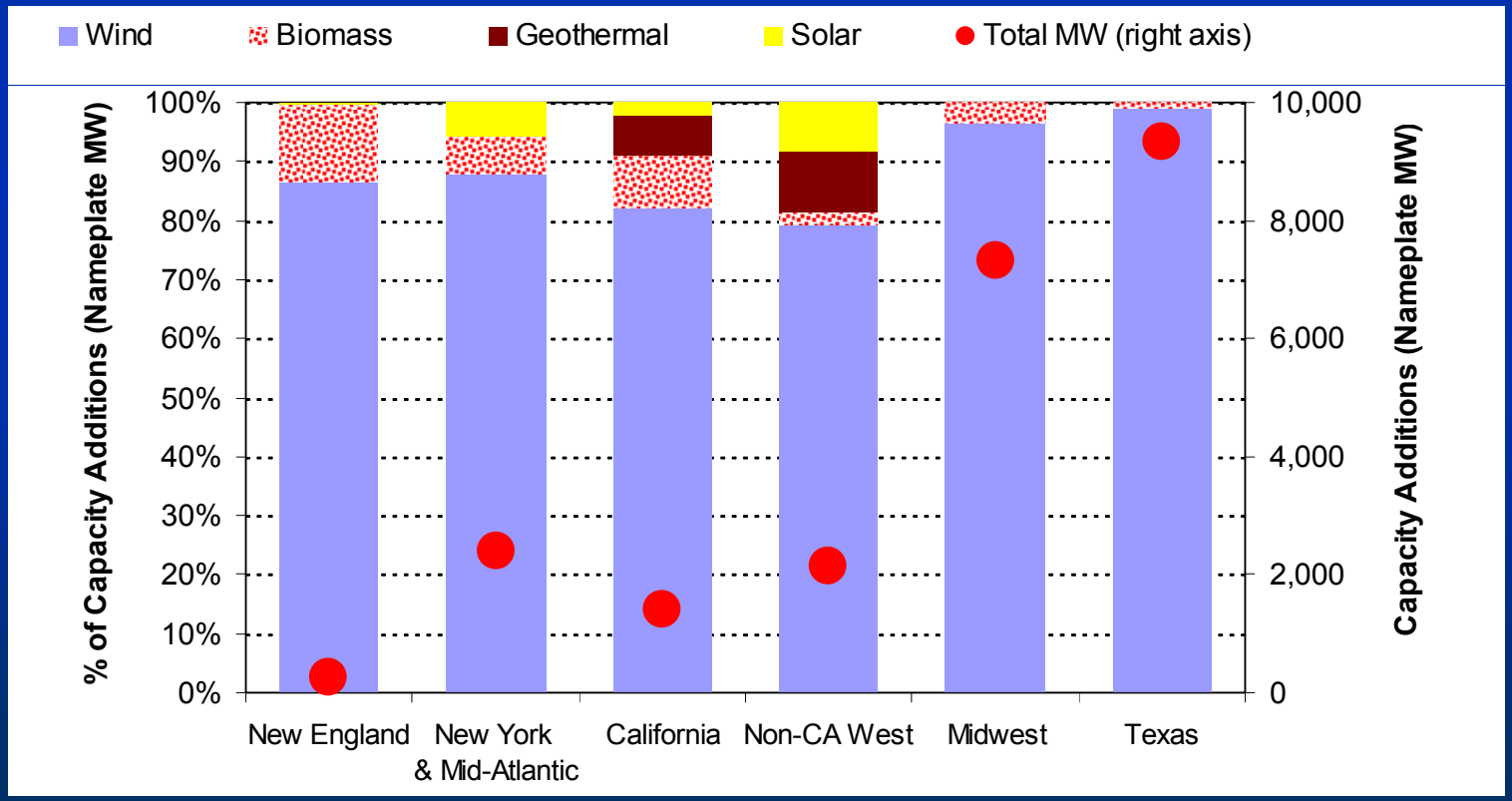
Data from Lawrence Berkeley Laboratory

Renewable Growth Among States



Source: Berkeley Lab

Wind has dominated RPS

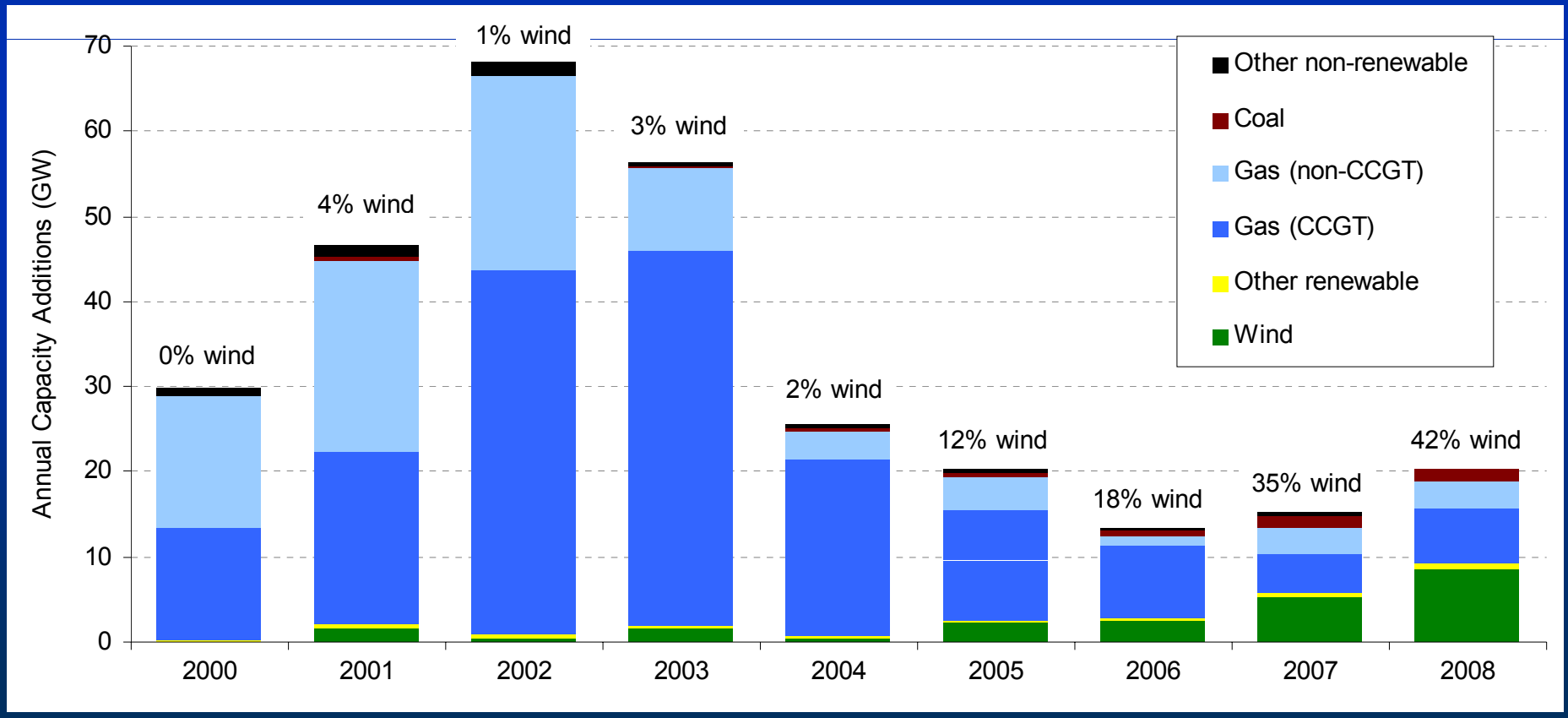


Source: Berkeley Lab

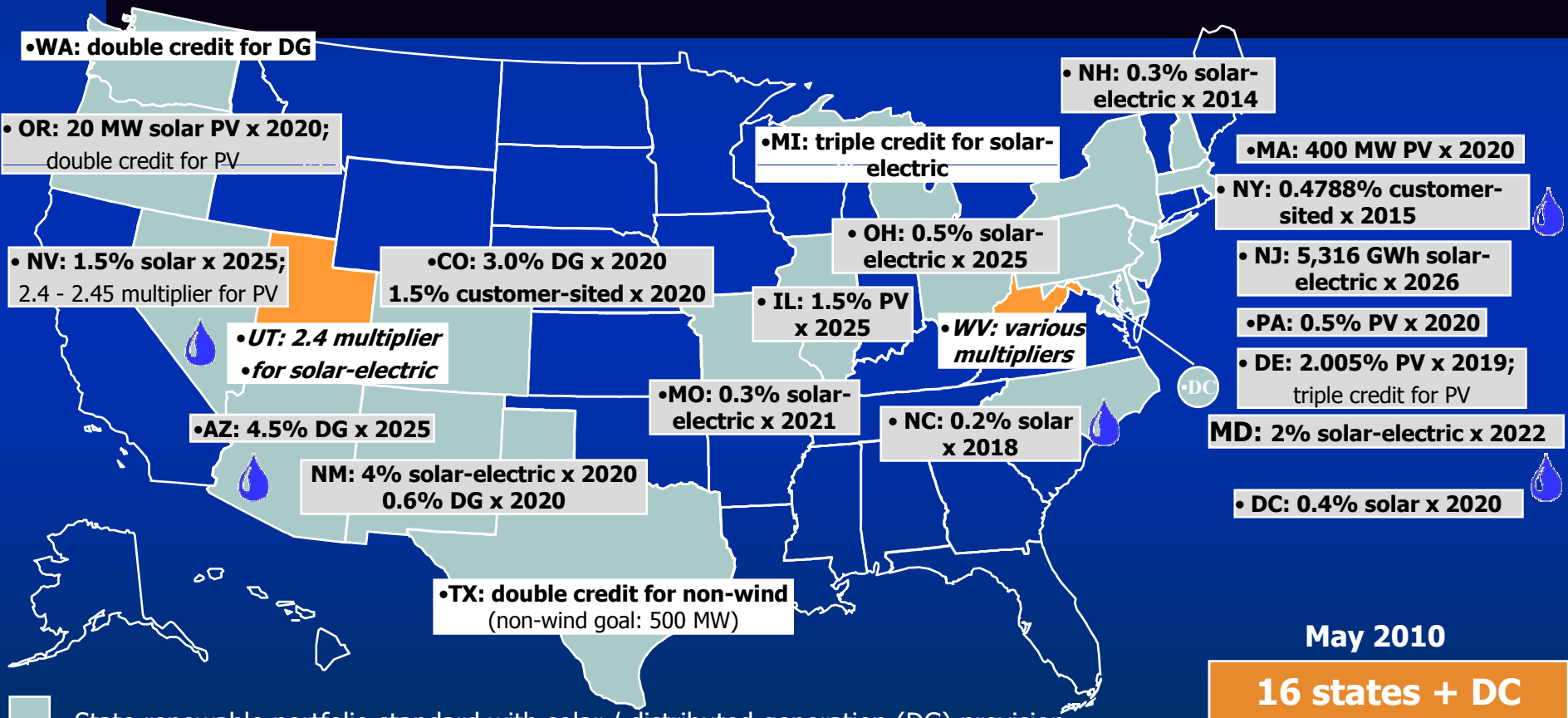
Wind

- In 2008, new wind made up 42% of the all new national power-producing capacity.
- 8,500 megawatts installed in 2008 (enough for 2 million homes)
- $17 Billion in investment

Wind Contributed 42% of New Capacity in the US in 2008



RPS Policies with Solar/DG Provisions



•State renewable portfolio standard with solar / distributed generation (DG) provision

•State renewable portfolio goal with solar / distributed generation provision

•Solar water heating counts toward solar provision

May 2010

16 states + DC have an RPS with solar/DG provisions

New Jersey Solar Set-aside

- **A.B. 3520 (January 2010)**
  - **Changed from percentage to total GWh**
    - **2011 - 306 GWh**
    - **2026 - 5316 GWh.**
- Alternative compliance payment for solar
  - $711 per MWh decreasing to $594 in 2016
  - Must be refunded to ratepayers
- Solar requirement will be frozen if the total cost of solar incentives exceeds 2% of the total retail price of electricity, and to resume when it drops back below 2%.

Many States Require or Encourage In-State Solar/DG Resources

Geographic Eligibility and Delivery Requirements	States
In-state generation ***requirement***	
Applies in all conditions	AZ, CO, MA, NJ, NM (DG); NY, OR
Out-of-state allowed only if in-state is insufficient	DC, MD
In-state generation ***encouragement***	
Stated preference for in-state; no specific mechanism	NM (solar)
Cost-effectiveness test	IL
Limit on RECs from out-of-state generators	NC
In-region generation requirement	PA
Electricity delivery requirement	
To state	MO, NV, OH
To broader region	DE, NH

Trans-Canada Power Marketing brought a legal challenge against the state of MA under Commerce Clause in April 2010. Since resolved.

Low-Cost Financing

- Property Tax or Utility Financed
  - 22 states have passed authorization Legislation
  - Overcome high upfront costs for both energy efficiency and renewables.
  - Energy retrofits financed over the long term, repaid through addition to homeowners' monthly utility bills, or property tax.
  - If designed properly repayment is less than energy gain/savings.

Third-Party Ownership

- System is owned by a separate business or investor. The investor utilizes incentives (federal investment tax credit, rebates, state tax credits).
- Removes Barriers
  - Up-front Costs
  - Lack of tax liability, Non-profits and government, etc.
  - Eliminates need to finance, build, and maintain system
  - Predetermined electricity price for 20–30 years.

Third-Party Ownership

- Challenges
  - Some states need to create policies to enable operation of third party ownership so they are not regulated as "electric service suppliers". Oregon, Arizona, Colorado and others.
  - Net metering regulations that imply that the net metering customer and the system owner are the same "person" may also inhibit adoption. Michigan has made revisions.

Challenges to RPS Targets

- Constrained capital markets
- Transmission
- Siting
- Integration
- Federal policy

Concluding Thoughts

- RPS is one of the biggest drivers of renewable development in the U.S.
- They continue to evolve, can be difficult to refine and vary tremendously from state to state.
- Compliance so far has been good and costs have been relatively low.
- Many challenges, including transmission, contracting, siting and integration need to be met to reach higher targets.

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